

Supplementary Material

Fiber Optic Particle Plasmon Resonance Biosensor for Label-Free Detection of Nucleic Acids and Its Application to HLA-B27 mRNA Detection in Patients with Ankylosing Spondylitis

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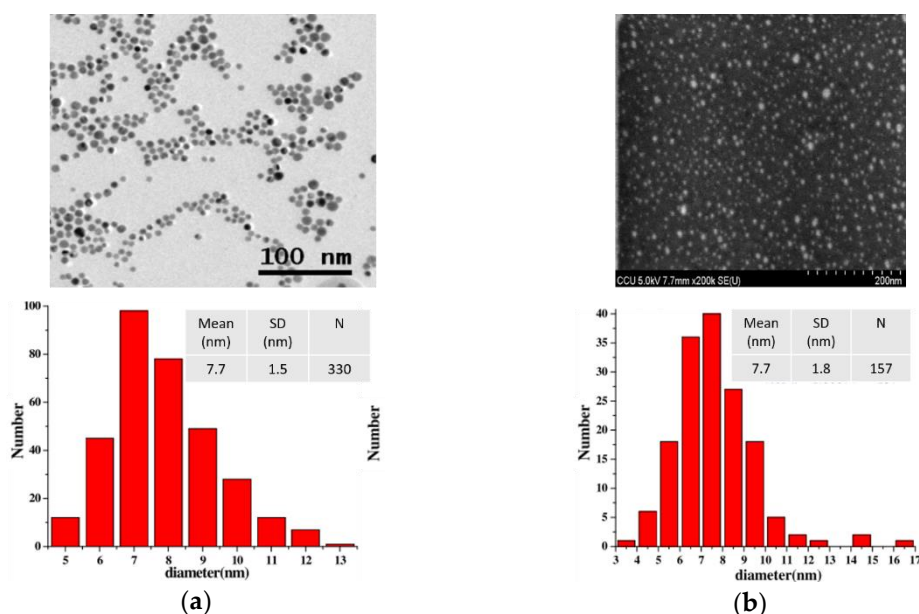


Figure S1. AuNP images obtained from electron microscopy. (a) A TEM image of synthesized AuNPs, the mean size of AuNPs is 7.7 ± 1.5 nm. (b) A SEM image of AuNPs on an optical fiber, the mean size of AuNP is 7.7 ± 1.8 nm.

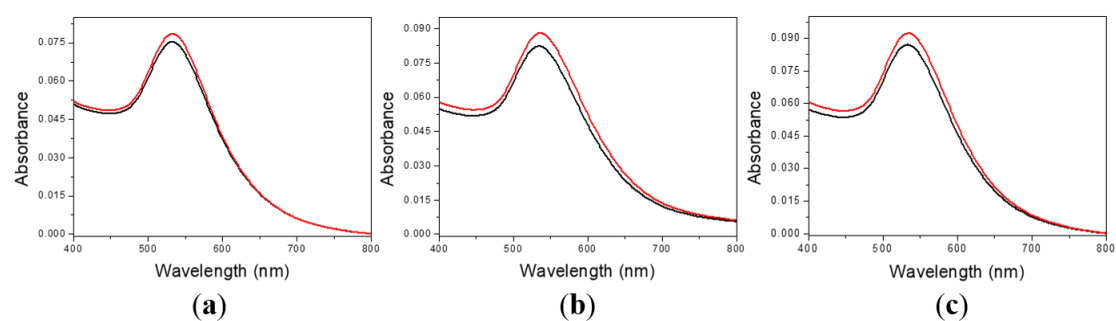


Figure S2. UV-visible spectra of thiolated ssDNA/MCE-modified AuNPs on glass slides before (black line) and after (red line) DNA hybridization with MCE reaction time at (a) 70 s; (b) 5 min; and (c) 1 h.

Table S1. Normalized absorbances of thiolated ssDNA/MCE-modified AuNPs on glass slides before and after DNA hybridization at 532 nm with various MCE reaction times.

MCE time	Before hybridization	After hybridization	A_h/A_0
70 s	0.075	0.078	1.04
5 min	0.076	0.081	1.06
1 h	0.087	0.092	1.06